Atomic Types Solutions

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Atomics

- Write a task function that increments a global variable 100,000 times in a tight loop
- Write a program that runs this task in concurrent threads and prints out the final value of the variable. Increase the number of threads until you see signs of data corruption
- Make the variable atomic. Do you still get data corruption?
- Briefly explain your results

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Atomic Types and Operations Solutions

- Non-atomic version
  - There is a data race. Threads interfere with each other and use incorrect values when incrementing the counter
- Atomic version
  - Incrementing the counter is done as an uninterruptible operation and the new value of the counter is immediately visible to all threads. This ensures the correct result

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